REMARKS

Applicant appreciates the fact that the Examiner has not issued a Final Rejection in light of the citation of new art. Applicant notes that the Office Action of October 18, 2005 did not act on claim 9; and applicant received, and appreciates, the indication that the Examiner will not issue a Final Rejection in response to this Amendment. Applicant believes, however, that this Amendment and arguments will place the application in condition for allowance, including dependent claim 9.

Applicant has amended independent claim 1 to overcome, it is believed, a new rejection. Applicant has also amended claims 10 and 16 to overcome the objections and Section 112 rejection in paragraphs 2-4 of the Office Action. Based on the amendments and points raised below, applicant respectfully requests reconsideration and allowance of all pending claims.

Turning first to the objects and rejections under Section 112, claim 10 has been amended to eliminate the phrase "characterized in that". Applicant would note, however, that it is not a basis for objection because a phrase does not "contain any structure". The term "characterized" is in widespread use throughout Europe and is commonly used in claim drafting in the United States.

Claim 16 has been amended to overcome the Examiner's objection set out in paragraph 2 of the Office Action. In addition, claim 16 has been amended to clarify the mounting surfaces identified in the claim.

Turning to the rejection of claim 7 based on the recitation that the segments are "integrally formed of metal", the basis of the rejection is that the term is indefinite. Applicant requests reconsideration. The term means, to one skilled in the art, it is respectfully submitted, that the segments are either cast, as preferred and explicitly disclosed, or forged, or formed from some other process such as machining or sintered metal processing. It is realized that some of these processes would be unduly expensive, and that casting the structure, due to its complexity, would be preferred. On the other hand, the strength of the section, and the economy of manufacture would be preserved as opposed, for example, from fabricated weldments such as are disclosed in the cited references, particularly ***Brittain et al.*** The extensive amount of welding required to make the wheel of ***Brittain et al.***, and the potential failures due to the large number of welds, is readily apparent, it is respectfully submitted, to one skilled in this art.

The Section 102 Rejections

Turning now to the rejection set out in paragraphs 5 and 6 of the last Office Action, namely a rejection that claims 1-3 are anticipated by ***Brittain et al.***, in the Examiner's interpretation of ***Brittain et al.***, the "wheel segments" are the "frictional engagement elements 50" which are bolted to the axially extending, circumferential mounting plates 46 (column 2, lines 54-60).

Amended claim 1 recites that the wheel segments of the first and second pluralities of segments include "respective inner surfaces cooperating to define a central peripheral groove sized to receive radially extending positioning lugs of said belt". The peripheral

groove recited in amended claim 1 is seen at 28 in FIGS. 2 and 4, and as shown in FIG. 3, this peripheral groove, formed by the cooperating inner edges of the mounted segments receives inwardly projecting lugs 24 of the belt to prevent the belt from moving axially of the wheel.

In short, once applicant's segments are mounted to the hub, these integrally formed segments provide both a series of circumferential, axially extending support elements for supporting the track, and inner surfaces "cooperating to define a central peripheral groove sized to receive" the positioning lugs of the belt.

Brittain et al., on the other hand, discloses two separate hub plates 34, 36 welded together, and having their peripheries welded to circumferential flanges (unnumbered, but seen in cross section in FIG. 4 as having triangular shapes to form the groove 38 for positioning the lugs 30 of belt 38). To these circumferential flanges, there are then welded, one on each side, fabricated outer hubs formed by inner and outer annular plates (40, 42) to which are welded the radial reinforcing members 44 and the circumferential mounting plates 46. In short, ***Brittain et al.*** discloses a costly "nightmare" of welding with a large number of possible failures - i.e. each weld.

Moreover, although it is true that the individual "engagement elements" 50 of ***Brittain et al.*** may be repaired in the field, if damaged, this is possible only if those segments are damaged with no further damage to the wheel - a highly unlikely event. For example, referring to FIG. 4, if the damage bends or displaces the outer peripheral circular flange 42, for example, "in field" repair or replacement is not possible because of the

numerous welds, the complexity of the welds required, and the need for close tolerance fabrication of the outer side hubs of ***Brittain et al.***

It is thus respectfully submitted that amended claim 1 defines patentable subject matter over ***Brittain et al.***; and allowance of amended claim 1 is respectfully solicited.

The Section 103 Rejection

Claims 1-3, 7 and 24 are also rejected, in paragraph 8 of the Office Action, as unpatentable over ***Johnson*** in view of ***Oertley '041***. The Examiner states that ***Oertley '041*** discloses a plurality of wheel segments 12 and 14. Claim 1 recites a first plurality of wheel segments mounted to a first lateral mounting surface of the mounting member, and a second plurality of wheel segments mounted to and engaging the second lateral mounting surface. Both lateral mounting surfaces are formed by the hub. The Examiner appears to recognize that each side wheel segment of ***Johnson*** does not constitute a plurality of segments, and to fill this deficiency, the Examiner cites ***Oertley*** '041. The Examiner acknowledges that the wheel segments of ***Oertley '041*** are made of metal, and this appears to be the case due to the cross sectioning of these members shown in FIG. 3 of ***Oertley '041***.

The Examiner, in formulating this rejection, has not acknowledged that each of the side driving members 12, 14 of ***Johnson*** are separate, individual resilient drive tires, see column 2, lines 50-53. It is important, in the system disclosed in ***Johnson***, that these two tires remain resilient in order to provide the necessary frictional drive surfaces 48, 50 which engage the opposing inner surfaces of the belt, designated 58 and 60. See, column 3, lines 8-12, where ***Johnson*** expressly states that the drive tires should not be compressed in

mounting or they will lose their resiliency. Moreover, the system of ***Johnson*** requires that the endless track be tensioned to provide "at least 2700 pounds of tension in the endless belt" to produce a "positive frictional engagement between the driving surfaces 48 and 50 (of the tires respectively) and the traction surfaces 58 and 60 (of the belt)."

It is also important to note that the primary driving function of the wheel disclosed in ***Johnson*** is performed by the resilient drive tires 12, 14, and that the central sprocket 52 is intended to provide drive only in exceptional cases (column 3, beginning at line 54). ***Johnson*** also states that his resilient tires 12, 14 are "preferably made of urethane", in order to provide a positive frictional engagement under the tensioned conditions, column 3, lines 40-50.

Moreover, it is noted that in order to mount the two, integral flexible drive tires of ***Johnson***, (as opposed to applicant's rigid wheel segments), spacer tubes 38, 40 extend through apertures in the inner portion of these tires, and annular clamp plates 30, 32 (see FIG. 3) are required to secure the tires together, with the spacer tubes limiting compression of the flexible tires.

The Examiner also suggests that ***Oertley '041***, which teaches the use of wheel segments 50, 52 (which for purposes of discussion may be formed of metal) would have rendered it obvious "to form the wheel segments of ***Johnson*** from metal, in order to reduce wear of the wheel, thus reducing maintenance costs". Such a suggestion would, to one of ordinary skill in the art, completely defeat the entire combination disclosed in, and the express purpose of ***Johnson***. It is essential, in the structure of ***Johnson***, to have integral, 15

compressible side tires to provide a friction drive to the belt. It is assumed that the Examiner has taken the position either that the solid, urethane tires of ***Johnson*** can be cut or formed into circumferential segments or that the resilient frictional drive tires of ***Johnson*** can be made of metal. Either suggestion ignores the teachings and requirements of the structure of ***Johnson*** when considered in its entirety, as well as that of ***Oertley '041***, properly considered in its entirety.

Considered in its entirety, as is required in applying a prior art reference to a claimed invention, ***Johnson*** discloses solid, but flexible, synthetic drive tires. ***Johnson*** does not address an idler wheel. ***Johnson*** requires a frictional drive surface. That is the purpose of using urethane for the tire, and tensioning the belt. Only in exceptional circumstances does the sprocket 52 drive the belt as ***Johnson*** as explicitly states at the top of column 2.

The individual segments 50, 52 of ***Oertley '041***, on the other hand, have, as their purpose, securing the cushioning members 46, 48 to reduce, in an idler wheel, noise and vibration normally generated by metal-to-metal contact between the metal connecting links of the drive chain and the idler (see column 1, beginning at line 14). Thus, ***Oertley '041*** discloses a metal idler wheel, which otherwise might be solid metal, but which includes an intermediate cushioning member for noise abatement. ***Oertley '041*** does not disclose an idler which is any way suggests the claimed invention. The wheel of ***Oertley '041*** has two separate integral hubs, one on either side of the wheel as clearly shown in FIG. 3. The drive surface of ***Oertley '041*** is a continuous metal surface since the segments 50, 52 are not

spaced in a circumferential direction so as to pass dirt clumps, small rocks or other debris that may become lodged beneath the belt, also see FIG. 3.

Prior art references must be considered in their entirety. When properly understood, there is no suggestion in either ***Johnson*** or ***Oertley '041*** to combine the two components suggested by the Examiner in rejecting claim 1. The very characteristic of the metal segments of ***Oertley '041***, namely their rigidity, militate against the primary objective of ***Johnson*** in specifying integral urethane drive tires, to provide the drive friction to the belt.

It is thus suggested that claim 1 does define patentable subject matter over the combination of ***Johnson*** and ***Oertley '041***.

Moreover, because the wheel segments of ***Johnson*** are solid, integral members, there is no advantage in causing them to be provided in butted sections. Any damage to these drive tires could not be repaired in the field since only solid tires would work in ***Johnson***, when considered in its entirety, as is required. There is no suggestion to use continuous, metal drive surfaces as required in ***Oertley '041***.

Turning to claim 8, as discussed above, ***Johnson*** discloses solid, integral drive tires and there is no suggestion to provide such drive tires in radial sections in ***Oertley '043***, (which discloses an idler wheel) nor, in fact, any suggestion in ***Oertley '043*** to modify the drive wheel of ***Oertley '041)*** to include spaced metal drive segments. In ***Johnson***, as noted, requires a frictional drive interface with the belt. Thus, the combination of ***Johnson*** and ***Oertley '043*** cannot form the basis for a Section 103 rejection of claim 8. It is respectfully

submitted that the rejection of claim 8 in paragraph 9 of the Office Action, upon reconsideration, should be withdrawn. ***Oertley '043*** discloses an endless, segmented "silent" chain - not bolted wheel segments, as the claims recite. There is no suggestion in this reference to provide spaced metal wheel segments for both supporting the track with a plurality of support surfaces and defining a central peripheral guide groove for lugs on the belt, as claim 1 (on which claim 8 now depends) recites. The elements 40 of ***Oertley '043*** are not metal elements mounted to lateral surfaces of a disc shaped mounting plate. Rather in ***Oertley '043***, a "silent" chain 36 is carried on a circumferential flange 30 of the hub. Thus, there is no suggestion other than in the instant application to angularly offset the circular outer segments of ***Oertley '043*** so that wheel segments on one side of a disc-shaped mounting plate may be mounted to opposing segments on the opposite side of the mounting plate for interlocking strength.

Legal Argument

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or references when combined, must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination of the reasonable expectation of success must both be found in the prior art

and must not be based on applicant's disclosure. ***In re Vaeck***, 947 F.2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991).

Considering these principles and the mandate of Section 103 that both the claimed invention and the cited references must be considered in their entirety, as they apply to the instant claims, the rejection of independent claim 1 under Section 103 based on the combination of ***Johnson*** and ***Oertley '041*** must fail for a number of legal reasons. First, there is no suggestion, expressed or implied in either of ***Johnson*** or ***Oertley '041*** to make the combination suggested by the Examiner. ***Johnson*** discloses a drive wheel, not an idler and, according to the teaching of ***Johnson***, that drive wheel requires two resilient, flexible tires to provide friction to drive the belt. Forming ***Johnson's*** drive wheels in sections makes no sense because it would defeat the purpose of ***Johnson*** in providing integral resilient drive wheels while providing no advantage. There is no such suggestion in ***Oertley '041***, either, because there is no suggestion that providing the outer surface of ***Oertley*** in segments would have any functional purpose other than to fabricate a segmented outer metallic surface to cover a sound-deadening member, as is disclosed in ***Oertley '041***. ***Oertley '041*** discloses a continuous, smooth metal peripheral engaging surface. Any debris trapped between a belt and the idler of ***Oertley '041*** would have no way of being expelled radially inwardly of the wheel.

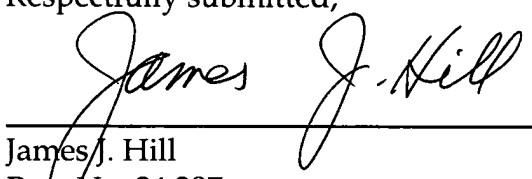
Thus, there is no reasonable expectation of success even if the solid, abutting, metal segments of ***Oertley '041*** were substituted for the solid, annular, flexible drive tires of ***Johnson***. Third, even if the combination were made, as suggested by the Examiner, the

combination would not include, as claim 1 recites, a disc-shaped mounting plate with a first plurality of metal wheel segments and a second plurality of metal wheel segments mounted to opposing lateral surfaces of the mounting plate, and with the individual wheel segments on opposing sides of the mounting plate cooperating to define a central peripheral groove for receiving radially extending positioning lugs of the belt.

Conclusion

It is thus respectfully submitted that all the pending claims are allowable and favorable action is favorably solicited.

Respectfully submitted,



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